

## REMARKS

**Claims 1-17 are pending and rejected.**

**Claims 1, 5 and 15 are amended.**

### **Amended Claims**

Claims 1, 5 and 15 have been amended to require that the second flocculant have a BV of at least 400,000.

Support for these amendments may be found on page 6, first paragraph and page 11, lines 16-18.

### **35 USC 112, second paragraph**

Examiner believes the limitations in claims 9, 10 and 17 appear to be misdescriptive because the Brookfield viscosity recited in claim 1 would appear to have larger intrinsic viscosities.

### **Declaration under 132**

Applicants attach a Declaration from one of the inventors, Tony Whittaker explaining:

Why the Intrinsic Viscosity limitations in claims 9, 10 and 17 are not misdescriptive and discusses the Brookfield viscosity of each of the second flocculant solutions in sets 1 thru 4, page 15.

### **The Intrinsic viscosity limitation in claims 9, 10 and 17 are not misdescriptive.**

The Brookfield viscosity (BV) cited in claim 1, refers to a minimum viscosity of the second polymer measured at 20 °C, RVT, spindle 6 and 1 rpm. Note that there is no concentration given for this BV as the concentration necessary to arrive at the specific BV will vary according to molecular weight and type of polymer. See page 6, lines 4-7. Generally higher molecular weight polymers can be used in lower concentrations than lower molecular weight polymers.

The IV measurements given in claims 9, 10 and 17 are measured at a set concentration as defined on page 9, first paragraph. Thus the IV value can be used to compare viscosities of similar polymers at the same concentration and allows for comparative molecular weight evaluation.

Therefore BV and IV are essentially different measurements. A BV of 400,000 cps cannot be directly compared to an IV value. For example, a polymer of IV of 3 dl/g may show a Brookfield viscosity of

400,000 cps at a concentration of 25 wt. %, while a polymer of IV of 6 dl/g may show a Brookfield viscosity of 400,000 cps at a concentration of 15 wt. %.

**Discusses the Brookfield viscosity of each of the second flocculant solutions in sets 1 thru 4, page 15.**

Polymer B in Table 1 of the present disclosure has an IV of 5 dl/g (page 13, line 11) but has a Brookfield viscosity of 609,000 cps in data sets 3 and 4 while data sets 1 and 2 have a Brookfield viscosity of lower than 6,000 . Note that the concentration of polymer B in sets 3 and 4 is 20 wt. %. The concentration of polymer B in sets 1 and 2 is 0.25 wt. %. Polymer B has an Intrinsic Viscosity of 5 dl/g but shows very different Brookfield viscosities depending upon the concentration of Polymer B.

### **35 USC 103(a)**

**The Examiner rejects claims 1 to 3 and 5 to 12 over Sorensen et al US 5846433 in view of Stevenson US 5,370,800 and Takaki et al US 5292821.**

Sorensen et al discloses the treatment of a suspension first with a coagulant and then with a flocculant followed by dewatering to form a thickened sludge or cake (see abstract).

The present claims differ from Sorensen by reciting that the process includes thickening the flocculated suspension and adding a second flocculant which is a polymer having a specific Brookfield viscosity. Examiner believes Stevenson to disclose that it is known in the art to mix waste water with a first flocculating polymer, remove water and then mix a second flocculating polymer with the floccules and filter.

The Examiner also concedes that Sorensen et al does not disclose the second flocculant having the required Brookfield viscosity.

Examiner has supplied Takaki to show that it is known in the art to utilize a polymer having the recited Brookfield viscosity, to aid in flocculating sludge suspension.

However, the combination of references do not arrive at the presently claimed invention as not one suggests a second dewatering flocculant of a cps of 400,000. Thus the rejection is overcome.

**Claims 4, 13, 14 and 16 are rejected under 35 USC 103(a) as being unpatentable over Sorensen et al in view of Stevenson, US 5,370,800 and Takaki et al and further in view of Ghafoor et al., US 6,001,920.**

Ghafoor et al is combined with Sorensen, Stevenson and Takaki to teach that it is known in the art to utilize a flocculant composition having a concentration of 5% by weight including first and second polymer coagulants or flocculants and simultaneous addition of first and second flocculant.

Ghafoor teaches a cps of no greater than 30,000.

As discussed above, neither Sorensen, Stevenson or Takaki teach a cps of 400,000 . Ghafoor does not make up for the deficiency. Thus the combined references do not teach the present claim limitations and the rejection is overcome.

#### **Double Patenting**

Claims 1-17 are provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-14 of co-pending Application No. 10/591,776.

Applicants respectfully request to put off addressing this rejection until the limitations of the allowed claims are known. At that time, applicants can better determine the suitability of the present double patenting rejection.

Reconsideration and withdrawal of the rejection of claims 1-17 is respectfully solicited in light of the remarks and amendments *supra*.

Since there are no other grounds of objection or rejection, passage of this application to issue with claims 1-17 is earnestly solicited.

Applicants submit that the present application is in condition for allowance. In the event that minor amendments will further prosecution, Applicants request that the examiner contact the undersigned representative.

Respectfully submitted,



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Enclosure: Request for Continued Examination and a Declaration under 132.